

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A continuous recording system, comprising:
an optical disk drive having an optical disk;
a fixed disk unit connected to said optical disk drive, said fixed disk unit having a fixed disk; and
a controller connected to said optical disk drive and said fixed disk unit, said controller comprising a memory; wherein
said controller controls to transfer operation such that data is inputted to said optical disk drive and is recorded on an optical disk of said optical disk drive; an input of said data is changed when said optical disk is replaced with a new optical disk, from said optical disk to said fixed disk unit and the data is recorded on a said fixed disk of said fixed disk unit; and the data recorded on said fixed disk is transferred, after said optical disk is replaced, to said new optical disk of said optical disk drive, and to record data in said memory onto either said optical disk of said optical disk drive or said fixed disk of said fixed disk drive at the same time thereby continuously recording the data.

2. (Previously Presented) A continuous recording system according to claim 1, wherein said optical disk is a magneto-optical disk or a phase transition disk.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Withdrawn) A digital recording method, comprising:

the step of storing digital data in a buffer at a video capturing interval equal to or less than a video recording interval set by a user and temporarily delaying the digital data; and
the step of recording the digital data which is stored in the buffer and which is delayed thereby on a storage medium at the video recording interval set by a user.

9. (Withdrawn) A digital recording method according to claim 8, wherein said video capturing interval is a minimum interval of time at which data can be recorded in the buffer.

10. (Withdrawn) A digital recording method, comprising:
the step of storing digital data in a buffer at a video capturing interval equal to or less than a first video recording interval set by a user in a first recording mode and temporarily delaying the digital data;
the step of recording the digital data which is stored in the buffer and which is delayed thereby in the first recording mode on a storage medium at the first video recording interval;
the step of changing operation from the first recording mode to the second recording mode; and
the step of recording the digital data stored in the buffer recording mode, the digital data being stored before a on the storage medium in the second point of time when operation is changed from the first recording mode to the second recording mode.

11. (Withdrawn) A digital recording method according to claim 10, further comprising the step of recording the digital data stored in the buffer on the storage medium in the second recording mode after the recording mode change time at a second video recording interval shorter than the first video recording interval.

12. (Withdrawn) A digital recording method according to claim 10, wherein the video capturing interval is a minimum interval of time at which data can be recorded in the buffer.

13. (Withdrawn) A digital recording method according to claim 11 or 12, wherein the video recording interval is the video capturing interval.

14. (Withdrawn) A digital recording method, comprising:

the step of capturing digital data at a video capturing interval equal to or less than a first video recording interval set by a user in a first recording mode, conducting predetermined processing including compression for the digital data to create first compressed data, and storing the first compressed data in a buffer and temporarily delaying the first compressed data;

the step of delaying by the buffer the first compressed data stored in the buffer in the first recording mode and then recording the first compressed data on a storage medium at the first video recording interval;

the step of changing operation from the first recording mode to the second recording mode;

the step of creating second compressed data with an amount of data larger than that of the first compressed data and storing the second compressed data in a buffer in the second recording mode; and

the step of delaying by the buffer the second compressed data stored in the buffer in the second recording mode and then recording the second compressed data on the storage medium.

15. (Withdrawn) A digital recording method according to claim 14, wherein said second compressed data recording step comprises recording the digital data stored in the buffer on the storage medium in the second recording mode after the recording mode change time at a second video recording interval shorter than the first video recording interval.

16. (Withdrawn) A digital recording method according to claim 14, further comprising the step of recording the digital data stored in the buffer on the storage medium in the second recording mode, the digital data being stored before the recording mode change time.

17. (Withdrawn) A digital recording system, comprising:
a controller for changing operation from the first recording mode to the second recording mode;
a buffer connected to said controller for being controlled by said controller, for storing therein digital data at a video capturing interval equal to or less than a first video recording interval set by a user in the first recording mode, and for temporarily delaying the digital data; and

a recording device connected to said controller for being controlled by said controller, for recording the digital data which is stored in said buffer and which is delayed thereby in the first recording mode on a storage medium at the first video recording interval, and for recording the digital data stored in the buffer on the storage medium in the second recording mode, the digital data being stored before a point of time when operation is changed from the first recording mode to the second recording mode.

18. (Withdrawn) A digital recording system, comprising:

a controller for changing operation from the first recording mode to the second recording mode;

a compressor connected to said controller for being controlled by said controller, for conducting predetermined processing including compression for the digital data, for creating first compressed data in the first recording mode, and for creating second compressed data in the second recording mode, the second compressed data having an amount of data larger than that of the first compressed data;

a buffer controlled by said controller for storing therein the first compressed data and the second compressed data at a video capturing interval equal to or less than a first video recording interval set by a user, and for temporarily delaying the digital data; and

a recording device connected to said controller for being controlled by said controller and for recording the first compressed data and the second compressed data which are stored in said buffer and which are delayed thereby on a storage medium.

19. (Withdrawn) A digital recording system according to claim 17 or 18, wherein said digital recording system is a surveillance system, further comprising an alarm connected to said controller for generating an alarm signal indicating a caution for a monitor region, said controller changing the first recording mode to the alarm signal to the second recording mode in response to the alarm signal.

20. (Withdrawn) A digital recording method, comprising:

the step of setting a first recording mode and a second recording mode;

the step of conducting predetermined processing including compression for digital data, creating first compressed data in the first recording mode, and creating second compressed

data in the second recording mode, the second compressed data having an amount of data smaller than that of the first compressed data; and

the step of recording the first compressed data on a recording medium in the first recording mode and recording the second compressed data on a recording medium in the second recording mode.

21. (Withdrawn) A digital recording system, comprising:

a controller capable of setting a first recording mode and a second recording mode; a compressor connected to said controller for being controlled by said controller, for conducting predetermined processing including compression for digital data, for creating first compressed data in the first recording mode, and for creating second compressed data in the second recording mode, the second compressed data having an amount of data smaller than that of the first compressed data; and

a recording device connected to said controller for being controlled by said controller, for recording the first compressed data on a recording medium in the first recording mode, and for recording the second compressed data on a recording medium in the second recording mode.

22. (Withdrawn) A digital recording system according to claim 21, further comprising a detecting section for detecting a remaining amount of storage capacity of the recording medium, wherein

said controller is connected to said receives a detection result from said detecting section to change the first recording mode to the second recording mode according to the remaining amount of storage capacity of the recording medium.

23. (Withdrawn) A digital recording system according to claim 22, wherein said compressor is controlled by said controller and thins out predetermined data from the digital data in the second recording mode to thereby create the second compressed data.

24. (Withdrawn) A digital recording system according to claim 23, wherein:
the digital data represents an image of a plurality of successive frames; and
the predetermined data is expressed in a unit of frames of the image.

25. (Withdrawn) A digital recording system according to claim 23, wherein:

the digital data represents an image of a plurality of successive frames;
each of the frames includes an array of a plurality of pixels; and
the predetermined data is expressed in a unit of pixels.

26. (Withdrawn) A digital recording system according to claim 21, wherein said compressor is controlled by said controller and uses a compression ratio in the second recording mode, the compression ratio being higher than that used in the first recording mode.

27. (Withdrawn) A digital recording method, comprising:
the step of compressing digital data representing an image to create compressed data;
the step of recording the compressed data on a recording medium; and
the step of changing an amount of data of the digital data per unitary time during said recording step.

28. (Withdrawn) A digital recording method, comprising:
the step of compressing digital data to create compressed data;
the step of recording the compressed-data on a recording medium; and
the step of changing a compression ratio to be used in the compression of the digital data during said recording step.

29. (Withdrawn) A digital recording method according to claim 28, wherein said changing step includes changing the compression ratio before compression to a compression ratio after compression, the compression ratio after compression being less than the compression ratio before compression.

30. (Withdrawn) A surveillance system, comprising:
a surveillance camera;
a video decoder connected to said surveillance camera for converting analog data outputted from said surveillance camera into digital data;
an image compressor connected to said video decoder for conducting predetermined processing including compression for the digital data;
a recording device connected to said image compressor for recording the compressed digital data compressed by the image compressor on a recording medium; and

a controller connected to said image compressor and said recording device, wherein:
said controller controls said image compressor to generate first compressed data in a first recording mode and second compressed data in a second recording mode, the second compressed data having an amount of data less than that of the first compressed data; and

said recording device records the first compressed data on a recording medium in the first recording mode and the second compressed data on the recording medium in the second recording mode.

31. (Withdrawn) A surveillance system according to claim 30, wherein:
said image compressor captures, in response to a capturing command sent from said controller, the digital data from said video decoder and compresses the digital data; and
said controller controls the capturing command to thereby control an amount of data per unitary time of the digital data captured by said image compressor.

32. (Withdrawn) A surveillance system according to claim 30, further comprising a frame buffer connected to said image compressor for temporarily storing therein the digital data before the digital data is compressed by said image compressor, wherein:
said image compressor reads, in response to a readout command sent from said controller, the digital data from said frame buffer and compresses the digital data; and
said controller controls the readout command to thereby control an amount of data per unitary time of the digital data.

33. (Withdrawn) A surveillance system according to claim 30, further comprising input means for requesting a user of said surveillance system to supply an input indicating whether or not the second recording mode is to be used.

34. (Withdrawn) A surveillance system according to claim 30, further comprising a detecting section for detecting a remaining amount of storage capacity of the recording medium, wherein
said controller is connected to said detecting section, receives a detection result from said detecting section, and automatically uses the second recording mode when the user does not supply an input to said input means before the remaining amount of storage capacity of the recording medium becomes equal to a predetermined value.

35. (Withdrawn) An image compression/decompression system, comprising:
a detecting circuit for subdividing first image information into areas each of which has a predetermined size and for detecting a maximum value of an image change rate per unitary distance for each of the areas;
a lowpass filter for conducting predetermined filter processing for the first image information in the area having the maximum value exceeding a threshold value; and
a JPEG codec for compressing second image information including the first image information in the area having the maximum value equal to or less than the threshold value and the first image information passed said lowpass filter, by conducting a DCT operation for the second image information.

36. (Withdrawn) An image compression/decompression system according to claim 35, further comprising a JPEG file processor for writing, in a comment marker, file data including identifier information of the area having the maximum value equal to or more than the threshold value, differential information between the maximum value and the threshold value, and the threshold value information and for thereby creating a JPEG file together with a compressed data string outputted from said JPEG codec.

37. (Withdrawn) An image compression/decompression system according to claim 35, further comprising:
a filter data analyzing circuit for receiving and analyzing the filter data including identifier information of the area having the maximum value equal to or more than the threshold value, differential information between the maximum value and the threshold value, and the threshold value information; and
a peaking filter for receiving the image information created by said JPEG codec and conducting predetermined filter processing, according to a result of the analysis by said file data analyzing circuit, for the area having the maximum value exceeding the threshold value.

38. (Withdrawn) An image compression/decompression system according to claim 37, wherein said detecting circuit, said lowpass filter, said file data analyzing circuit, and said peaking filter are integrally constructed as one digital signal processor.

39. (Withdrawn) A surveillance system, comprising:
a surveillance camera;

a video decoder connected to said surveillance camera;
an image compression/decompression system connected to said video decoder;
a video encoder connected to said image compression/decompression system; and
a display connected to said video encoder, wherein:
said image compression/decompression system comprises:
an input filter connected to said video decoder;
JPEG codec connected to said input filter; and
a JPEG filter processor connected to said input filter and said JPEG codec,
said input filter includes:
a detecting circuit for subdividing first image information into areas each of which has a predetermined size and for detecting a maximum value of an image change rate per unitary distance for each of the areas; and
a lowpass filter for conducting predetermined filter processing for the first image information in the area having the maximum value equal to or more than a threshold value,
said JPEG codec compresses second image information including the first image information in the area having the maximum value less than the threshold value and the first image information passed said lowpass filter, by conducting a DCT operation for the second image information, and
said JPEG file processor writes, in a comment marker, file data including identifier information of the area having the maximum value equal to or more than the threshold value, differential information between the maximum value and the threshold value, and the threshold value information, and thereby creates a JPEG file together with a compressed data string outputted from said JPEG codec.

40. (Withdrawn) An automatic setting and update method for system parameters of a surveillance system, comprising:

the step of making a check to determine i whether or not there exists a first system parameter currently being used in the surveillance system and whether or not a second system parameter to be introduced to the surveillance system is younger than the first system parameter;

the step of automatically setting, when it is determined that the first system parameter does not exist in the surveillance system, the second system parameter to the surveillance system by copying the second system parameter thereonto;

the step of automatically updating, when it is determined that the first system parameter exists in the surveillance system and the second system parameter is younger than the first system parameter, the first system parameter to the second system parameter; and

the step of keeping the first system parameter when it is determined that the first system parameter exists in the surveillance system and the first system parameter has a creation day equal to or younger than a creation day of the second system parameter.

41. (Withdrawn) An automatic setting and update method for system parameters in accordance with claim 40, further comprising the step of confirming, before said determining step, identifier (ID) data regarding the second system parameter to be introduced.

42. (Withdrawn) An automatic setting and update method for system parameters in accordance with claim 40, wherein:

the first system parameter includes a flag for allowing update of the first system parameter;

said method further comprising the step of making a check to determine whether or not the flag allows update of the first system parameter; and

said update step includes updating the first system parameter when it is determined that the flag allows the update.

43. (Withdrawn) An automatic setting and update method for system parameters in accordance with claim 40, wherein:

the first system parameter sets a plurality of operation environments and includes a flag for allowing update the first system parameter for each of the operation environments;

said method further comprising the step of making a check to determine whether or not the flag allows update of the first system parameter; and

said update step includes updating the first system parameter for operation environments for which it is determined that the flag allows the update of the first system parameter.

44. (Withdrawn) An automatic setting and update method for system parameters in accordance with claim 40, further comprising the step of accessing, before said determining step, a predetermined address to download the second system parameter via a communication line.

45. (Withdrawn) An automatic setting and update method for control programs of a surveillance system, comprising:

the step of making a check to determine whether or not there exists a first control program currently being used in the surveillance system and whether or not a second control program to be introduced to the surveillance system is younger than the first control program;

the step of automatically setting, when it is determined that the first control program does not exist in the surveillance system, the second control program to the surveillance system by copying the second control program thereonto;

the step of automatically updating, when it is determined that the first control program exists in the surveillance system and the second control program is younger than the first control program, the first control program to the second control program; and

the step of keeping the first control program when it is determined that the first control program exists in the surveillance system and the first control program has a creation day equal to or younger than a creation day of the second control program.

46. (Withdrawn) An automatic setting and update method for control programs in accordance with claim 45, further comprising the step of confirming, before said determining step, identifier (ID) data regarding the second control program to be introduced.

47. (Withdrawn) An automatic setting and update method for control programs in accordance with claim 40, further comprising the step of accessing, before said determining step, a predetermined address to download the second control program via a communication line.

48. (Withdrawn) A surveillance system, comprising:
a surveillance camera for shooting an object and for outputting an electric analog signal;
a converter section for converting the electric analog signal into a digital signal; and
a controller for recording and editing the digital signal, wherein said controller comprises:

a storage for storing therein system parameters for setting an operation environment of said surveillance system and control programs for controlling said respective sections of said surveillance system; and

a controlling section for controlling automatic setting and update of the system parameters and the control programs.

49. (New) A continuous recording system according to claim 1, wherein said data includes time information.

50. (New) A continuous recording system according to claim 1, wherein said data includes compressed data.